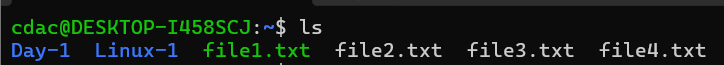
**ASSIGNMENT 1**

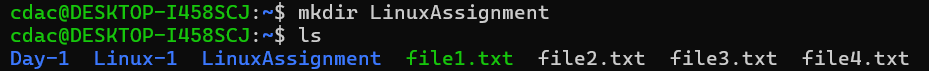
**Problem 1: Read the instructions carefully and answer accordingly. If there is any need to insert some data then do that as well.**

1. **Navigate and List:**

a. Start by navigating to your home directory and list its contents. Then, move into a directory named "LinuxAssignment" if it exists; otherwise, create it.

ls ( list contents)

mkdir LinuxAssignment (mkdir to create directory) 



1. **File Management:**

a. Inside the "LinuxAssignment" directory, create a new file named "file1.txt". Display its contents.

nano file1.txt (nano create file if it already exist then it open that file if not created then create that file)

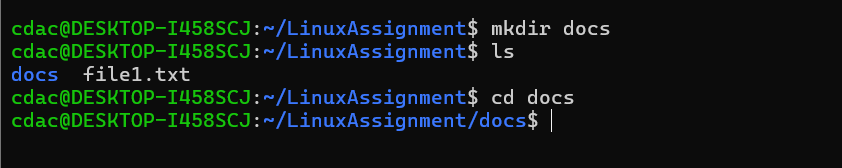
touch file1.txt (touch create empty file)



1. **Directory Management:**

a. Create a new directory named "docs" inside the "LinuxAssignment" directory.

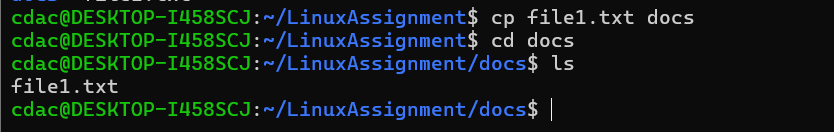
mkdir docs (LinuxAssignment> mkdir docs)



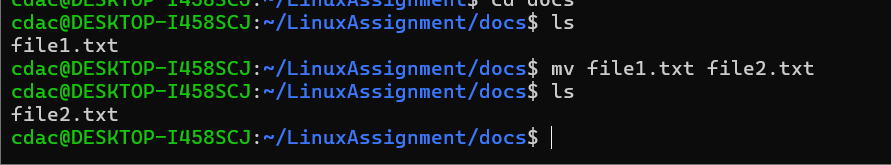
1. **Copy and Move Files:**

a. Copy the "file1.txt" file into the "docs" directory and rename it to "file2.txt".

cp file1.txt docs



mv file1.txt file2.txt

****

1. **Permissions and Ownership:**

a. Change the permissions of "file2.txt" to allow read, write, and execute permissions for the owner and only read permissions for others. Then, change the owner of "file2.txt" to the current user.

chmod o+x file2.txt

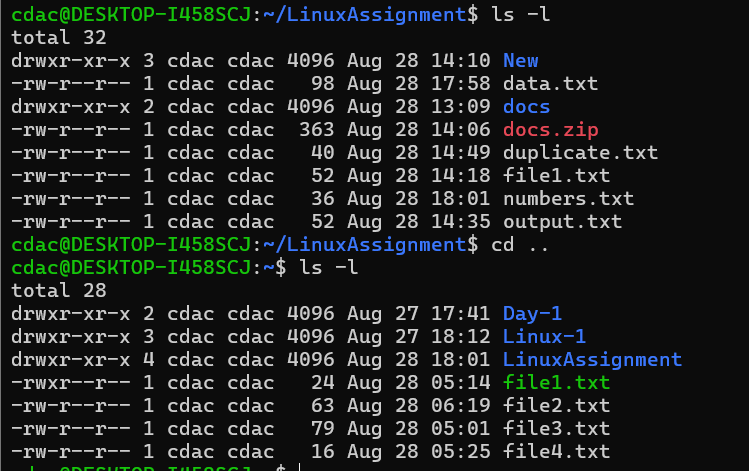
sudo adduser User1

sudo chown user1 file2.txt

1. **Final Checklist:**

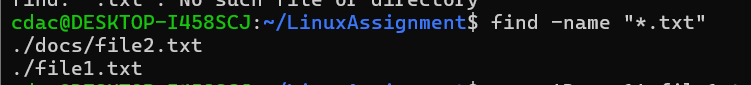
a. Finally, list the contents of the "LinuxAssignment" directory and the root directory to ensure that all operations were performed correctly.

ls -l



**g) File Searching:**

a. Search for all files with the extension ".txt" in the current directory and its subdirectories.

find -name “\*.txt” 

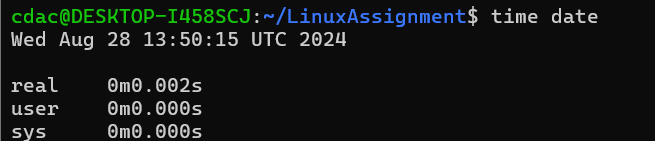
b. Display lines containing a specific word in a file (provide a file name and the specific word to search).

grep ‘Demo 1’ file2.txt

1. **System Information:**

a. Display the current system date and time.

time date



1. **Networking:**

a. Display the IP address of the system.

sudo apt install net-tools

ifconfig

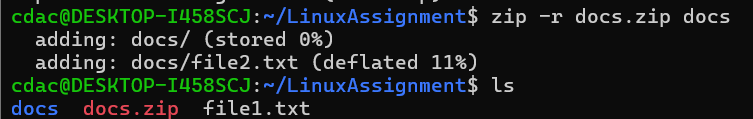
b. Ping a remote server to check connectivity (provide a remote server address to ping).

ping google.com

**j) File Compression:**

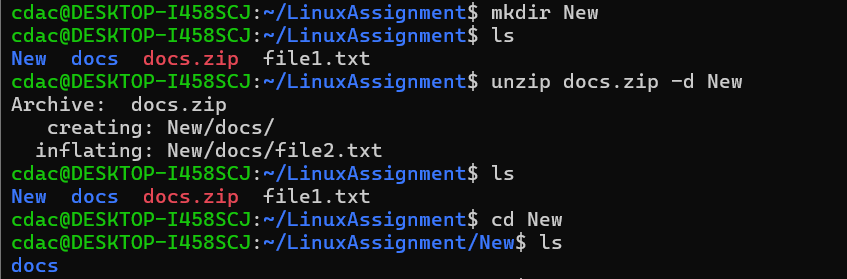
a. Compress the "docs" directory into a zip file.

zip -r docs.zip docs



b. Extract the contents of the zip file into a new directory.

unzip docs.zip -d New



**k) File Editing:**

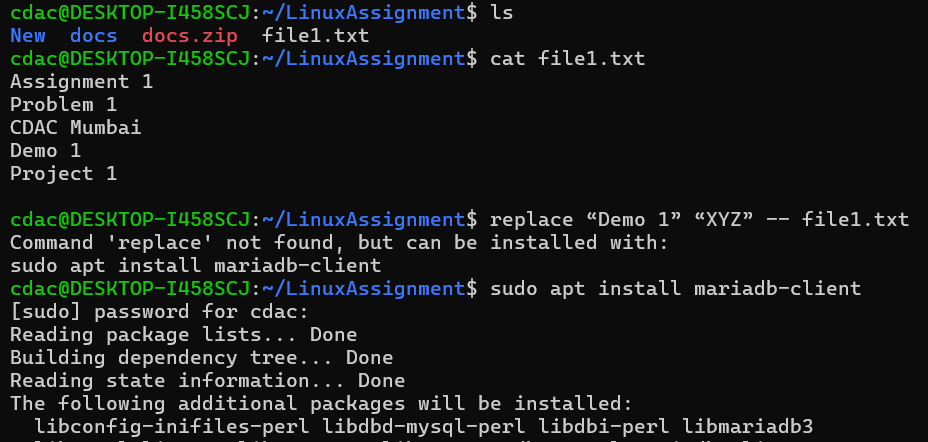
a. Open the "file1.txt" file in a text editor and add some text to it.

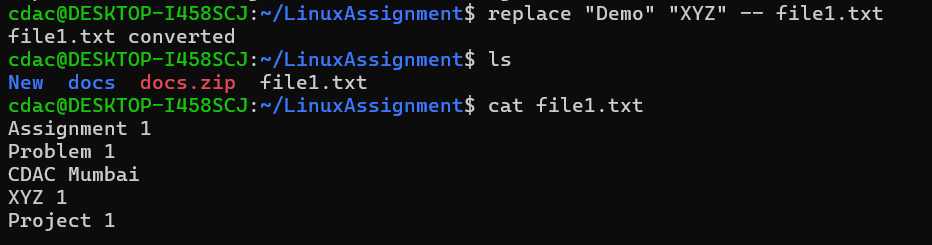
nano file1.txt

Add text ctrl+x 🡪y 🡪enter

b. Replace a specific word in the "file1.txt" file with another word (provide the original word and the word to replace it with).

sudo apt install mariadb-client

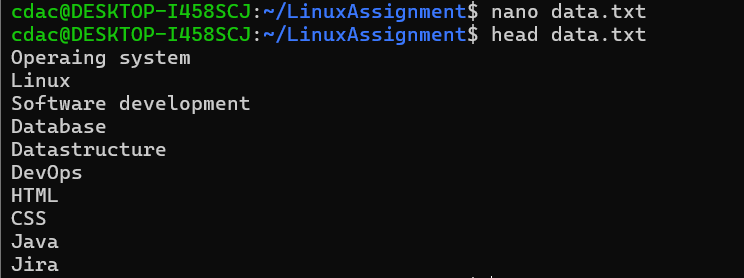
replace “Demo” “XYZ” -- file1.txt



**Problem 2: Read the instructions carefully and answer accordingly. If there is any need to insert some data then do that as well.**

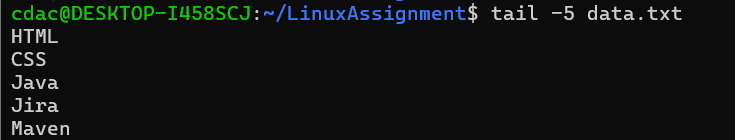
1. Suppose you have a file named "data.txt" containing important information. Display the first 10 lines of this file to quickly glance at its contents using a command.

head data.txt



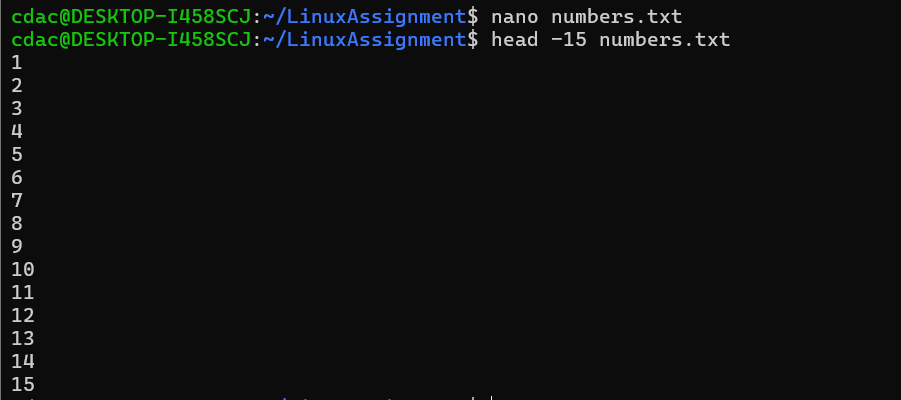
1. Now, to check the end of the file for any recent additions, display the last 5 lines of "data.txt" using another command.

tail -5 data.txt



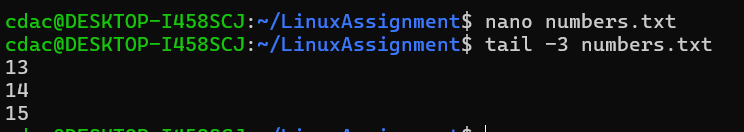
1. In a file named "numbers.txt," there are a series of numbers. Display the first 15 lines of this file to analyze the initial data set.

head -15 numbers.txt



1. To focus on the last few numbers of the dataset, display the last 3 lines of "numbers.txt".

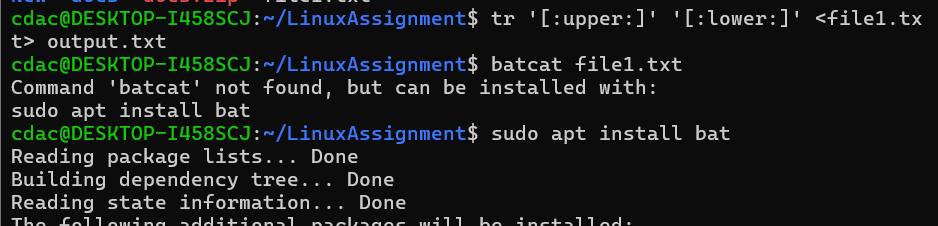
tail -3 numbers.txt

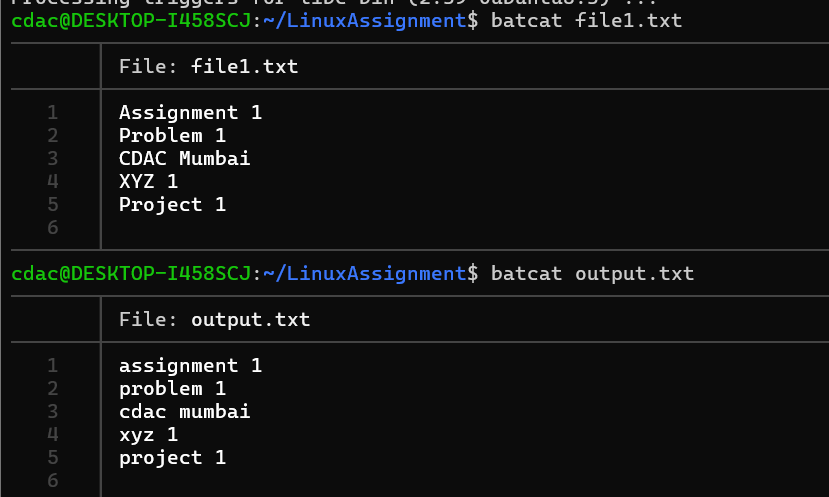


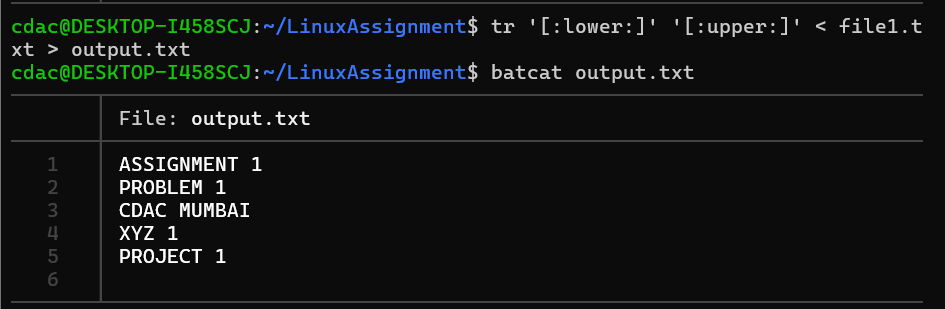
1. Imagine you have a file named "input.txt" with text content. Use a command to translate all lowercase letters to uppercase in "input.txt" and save the modified text in a new file named "output.txt."

sudo apt install bat

batcat file1.txt

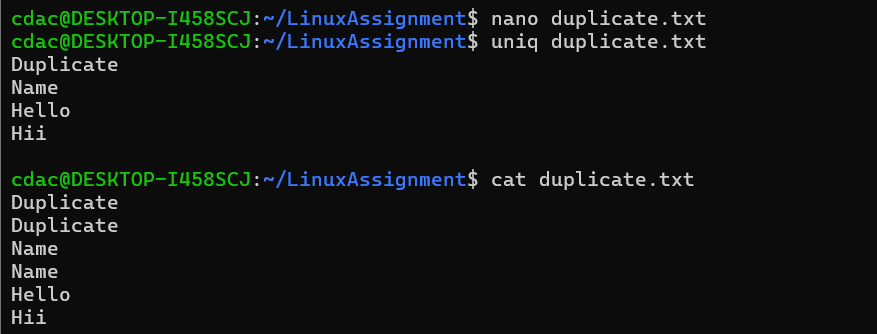
tr '[:lower:]' '[:upper:]' < input.txt> output.txt





1. In a file named "duplicate.txt," there are several lines of text, some of which are duplicates. Use a command to display only the unique lines from "duplicate.txt."

uniq duplicate.txt



1. In a file named "fruit.txt," there is a list of fruits, but some fruits are repeated. Use a command to display each unique fruit along with the count of its occurrences in "fruit.txt."

uniq -c fruit.txt

